towns with limited resources) will have been fulfilled.

Continental also highlighted in its initial comments several of the unique characteristics of the cable industry, and explained how the dynamic changes in the industry can be accommodated by a set of rate benchmarks. Not surprisingly, considering the distinct advantages of this type of price regulation, most other commentators *including the major representatives of franchising authorities themselves* supported the concept of rate benchmarks.[1] Only a few commenters supported different economic approaches for regulated rates.[2] These other analyses are incomplete and highly problematic, and sometimes blatantly parochial, as we show here.

These alternative ratesetting proposals would establish an enormous burden on the Commission, the industry and consumers. The few parties suggesting that full cost of service techniques be applied or that the Commission should develop national cost of service benchmarks generally cite anecdotal examples of how these values might be ascertained. The comments are filled with "examples" or hypothetical "illustrations." Important data, which would be needed in practice to apply the methods, are simply assumed to exist. The comments fail to even identify the

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1 *See* Comments of the NATOA at pp. 40-42.

2 Substantive methods for establishing price levels of basic cable service are outlined, in differing amounts of detail, in the comments submitted by the Consumer Federation of America (CFA), the National Association of Broadcasters (NAB) and Austin, Texas *et al.* (municipal coalition).

data sources that would be needed to implement these proposals.

Nor do these parties promise to provide more specific guidance in the future. Instead, the Commission is encouraged to begin, on its own, to define the precise data needed to implement the methods, make the key cost allocations, calculate the correct expense, income tax or costs of capital and generally to embark on the creation of a full methodology. A full methodology is one that could be validated by the Commission and would stand up to the requirements of the 1992 Act and cable operator's protection against confiscation. None of these comments offers a full methodology. These comments fail to attempt even a rudimentary showing that the administrative costs of the ratesetting schemes would be reasonable. A frequent argument is that the Commission should allow franchising authorities to elect to implement full rate base regulation whenever they desire. Naturally, this formulation will create adverse selection among full cost of service schemes and cost benchmarks; eventually the process will result in micro-public utility regulation of almost every cable system or franchise.

Perhaps because these commenters recognize that their suggestions rest upon incomplete analyses and mask many potential problems, they try to buttress their cases by estimating large rate reductions that would allegedly occur under these ratesetting "solutions." The estimated "savings," however, are erroneous and non-existent. The rate reductions in these comments may overlook key costs, like the true cost of capital, or income taxes that must be paid on earnings currently realized. Expense levels for cable systems appear to be simply assumed in some cases, or the cost function of the industry is assumed to fall in a strictly linear manner (unlike virtually any real cost function). Or, unlike virtually any *real* business, the legitimate economic value of the cable industry is assumed to be expressed only in the value of its hardware assets. None of these conditions are true, however, and therefore promises of large cable rate reductions based upon such illusions are not persuasive.

A Review

Continental, along with many other operators, detailed several important factual conditions in the January 27 comments. These conditions inevitably will influence the structure of the rate regulation scheme selected by the Commission. These actual conditions are unrelated to any alleged monopoly power of the industry, but they do suggest how the 1992 Act can be implemented within the principles framed by Congress. They suggest the appropriateness of a true benchmark approach rather than the masked cost-based approach preferred by NAB, CFA and the municipal coalition. By comparison, the unique ratesetting methods set forth by these commentators generally fail to account for these real-world conditions.

- Capital additions. We showed that Continental has experienced large increases in capital expenditure since 1984 and, importantly, that such capital additions frequently occur in large "lumps."[3] The cost structure of cable systems has not yet stabilized into any type of pattern that would enable the Commission to substitute national-average reference costs for system-specific data to any meaningful degree.

- Valuation. At several points in its comments, Continental noted several valid and potentially quantifiable, economic factors that enter into the valuation of assets such as goodwill or franchise rights. The assertions by some parties that cable system valuations reflect "monopoly rents" are unsupported. If their valuation concepts were applied to other industries, many of those sectors would appear to realize "rents" notwithstanding competition and structural factors at odds with such a conclusion. Therefore, any effort to identify "monopoly rents" for rate making purposes would require extensive economic analysis.

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[3] *See*, for example, Continental Comments at pp. 30-31 and Appendix C, pp. 10-14. An interestingly parallel to our observation is found in Kelley, "The Economics of Cable Television Regulation," (Attachment to Comments of Time Warner), p. 4. Kelley notes that employment in the cable industry has jumped 60% since 1984.

While each step required to quantify the difference between real economic values and monopoly rents is fully susceptible to empirical analysis, provided that the proper data were collected, such analysis for the cable industry as a whole would be inordinately complex and very time consuming. Moreover, suggesting that anything other than the book value of a cable system's hard assets must represent monopoly rents, as do these commenters, would create obvious negative incentives and likely lead to adverse impacts on cable consumers.[4]

The effect of any partial or temporary rate freezes, for example, would have to be accounted for in the system's later revenue streams. This effect could conceivably be identified by the Commission if it could estimate average revenues per subscriber in franchises that were never subject to rate freeze requirements, compared to revenues realized at the same point in time for system's that incorporated rate freezes or caps as part of the franchise auction. Additional adjustments would be required for other costs that, in effect, are added on to franchise

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[4] We noted in our Comments that Continental Cablevision itself has written off almost $100-million in "stranded investment" over the last four years. Comments, Appendix C, p. 10. This type of write-off would not have occurred under any form of rate base regulation during the 1984-92 period promising ultimate capital recovery through regulated depreciation of the rate base. This value should be added back to a system's investment level as one step in the correct valuation of a "rate base."

costs. Some of these economic analyses might not be required in connection with rate base valuation in stable, mature public utility industries,[5] but they would be unavoidable predicates to rate base regulation of cable systems.

- Industry structure. We showed that the cable industry was required to develop in a very fragmented manner, community by community.[6] Among other effects of this development there is no uniform accounting system or chart of accounts applicable to all cable operators. Continental maintains its books of account at regional operational unit levels, rather than at system (headend) or franchise levels.[7] Many other operators likely use similar approaches, because deregulation provided no incentives to follow uniform approaches or to "game" the system. Other commenters miss this point.

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[5] Nevertheless, while "goodwill" generally has been disallowed in many public utility ratemaking proceedings, there are a number of recent examples where regulators have allowed goodwill be to capitalized when they perceived legitimate economic proof that doing so was consistent with improving the utility's incentives. *See* "Goodwill: A Tangible or Intangible Ratemaking Component?" *Public Utilities Fortnightly*, August 17, 1989, page 43, 45. This type of regulatory treatment is, of course, fully consistent with the Commission's discussion in Appendix B of the *Notice*. As we noted, the cable industry is likely to be especially subject to such unrealized operating efficiencies due to the fragmented geographical character of its franchises. Continental Comments, Appendix B, pp. 3-5.

[6] Continental Comments, Appendix C.

[7] Continental Comments, Appendix A, pp. 2-3.

The lesson of these observations is clear: Creation of a rate base-form of regulation for an industry not previously subject to such regulation must involve the regulator, the regulated entity and all interested parties in a complete review of the cost structure of the industry and the specific system under investigation. The analysis would have to consider how historical factors, like the vicissitudes of community franchise regulation, are involved in the cable TV industry. It would have to account for future effects such a new technologies, local franchise conditions, terms of a particular system sales, timing and other factors as well.

Alternative Rate-Setting Proposals

Viewed in the proper context, then, the partially-articulated ratesetting proposals set forth by a few parties fail to provide any meaningful road maps to the Commission. These proposals would rob the industry of its growth potential and confiscate its economic value. Consultants for the National Association of Broadcasters (NAB), for example, recommend a "hybrid" rate scheme in which operators would be limited to recovering only the replacement cost of capital assets.[8] The consultants define

[8] Haring, Rohlfs and Shooshan, "Efficient Regulation of Basic-Tier Cable Rates," attached as Appendix A to the NAB Comments ("NAB consultant's report")

replacement cost in an artificially restrictive manner as "how much it would cost to replace existing plant with new plant that would perform the same functions."[9] In other words, cable operators would be forced to accept capital recovery based upon nothing more than the current or historic functionality of their plant.[10] New functionalities that promise to offer consumers many new services and features are locked out of this formulation.

The NAB plan would be based upon industry-wide benchmarks for capital costs but would allow "cable companies to recover their *actual* noncapital costs."[11] Noncapital costs would be measured "directly on a local basis."[12] In other words, NAB's plan would require detailed cost of service regulation at each and every franchise level – necessitating many special cost allocations in Continental's case[13] and ultimately requiring the Commission to develop a comprehensive system of financial and

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[9] *Id.*, p. 11.

[10] NAB apparently contemplates that even this technologically-constrained capital costs would represent a ceiling for the capital cost benchmark, because its consultants suggest that even the static replacement value should be "adjusted downward" to account for increased revenue producing "potential" or assumed lower maintenance costs. NAB Comments Appendix A, p. 12.

[11] *Id.*, page 2, emphasis in original.

[12] *Id.*, p. 10.

[13] Continental Comments, Appendix A, p. 2-4.

cost accounting.

The first problem with NAB's suggestions is that there is no such thing as halfway public utility regulation. Pass through of actual operating expenses would create a system almost as complex as if full rate base regulation were applied to the industry. Under NAB's plan uniform cost and financial accounts would be needed for all 11,000 cable systems and 20,000 franchise areas. The Commission would have to specify ways to allocate costs that are not collected on a system-by-system or franchise-specific basis. Moreover, one cannot direct each operator to identify its actual operating expenses and then assert that operators with higher-than average capital costs must accept average schedules of capital costs.

Equally important, the NAB rate regulation proposal overlooks the fact that there is likely to be as much variability in capital inputs as in operating expenses in the changing cable industry technological environment. In fact, all three of the alternative ratesetting recommendations make broad assertions that only a few "key" variables affect some or all of the industry's cost structure, but they do not even begin to make the empirical, econometric analysis that would be minimally required to prove this point. We believe, to the contrary, that capital costs are likely to vary just as greatly as non-capital costs based upon geographic, demographic, technological and regional (as to parts of the U.S.) factors -- and to vary at different rates for different systems at different points of time in the franchise and system rebuild cycles. The NAB consultants also expect the Commission to develop cost of service adjustments based upon "expected prices" or "expected inflation" but do not say how these expectations are to be measured.[14]

NAB seems to have focused only on developing a rate regulation scheme that appears custom made to fit broadcasters' role as a supplier to the cable industry, ignoring the significant value that the cable operator adds to the broadcast signal. The central feature of the unique, bifurcated approach to regulating basic cable rates proposed by NAB is that it is designed to benefit one class of suppliers to the cable industry. NAB supports some benchmarking, but when it comes to the added costs that broadcasters hope to impose on the cable industry in the form of new programming fees, the NAB rate scheme would ensure that these costs would be passed through to cable subscribers so that the broadcasters would be guaranteed of collecting "what the traffic will bear" from cable subscribers.[15]

The Consumer Federation of America (CFA) makes an even greater

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[14] NAB Comments, Appendix A, p. 12. This notion presumes a certainty about the future which does not exist (or, if it did, it would be a very valuable, proprietary type of knowledge not suitable to a public system of economic regulation).

[15] NAB Comments, Appendix A, p. 12.

mistake by suggesting that costs should be frozen at the recovery levels reflected in 1984 rates, or perhaps 1986.[16] While CFA's overall comments are lengthy, the core empirical analysis by which this rate rollback notion is developed is quite limited. Much of the analysis in CFA's comments appears to indicate that *some* form of regulation is required but does not come to grips with what kind of regulation. CFA -- like other commenters with partial rate regulation "solutions" -- is unable to specify which "representative cost characteristics" should be used.[17] It suggests that it would be "inappropriate to simply escalate per channel rates" by price inflation but does not appear to offer an alternative indexing formula anywhere in its comments.[18] Little wonder, then, that CFA notes that it expects its "global formulaic" cost results to be subject to review on a case-by-case basis.[19]

In fact, CFA's more general dissertation would seem to have been mooted by enactment of the legislation.[20] CFA seems to

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16 CFA Comments, pp. 86-89.

17 CFA Comments, p. 87.

18 *Id.*, p. 91.

19 *Id.*, p. 106.

20 Generally, the first half of CFA's Comments appears to consist of boilerplate bearing little relevance to the actual issues facing the Commission. Pages 1-17 involve a general discussion of part of the legislative history of the 1992 Act that duplicates discussion in the *Notice*; pages 17-39 provide a limited treatise on industrial organization economics; and pages (continued...)

ignore the actual legislation that was assembled -- as a compromise -- by Congress. Congress created an entire *system* of tools, including but not limited to rate regulation, and available procedural alternatives to meet multiple objectives in the most resource-efficient manner.

Both CFA and the municipal coalition argue that the "effective competition" test is unworkable (without empirically demonstrating this) and then outline rate schemes that are unrelated to the legislation.[21] CFA's exact position on the subject is less than clear. CFA's "global, formulaic" cost of service approach is premised on the assumption that an effective competition model will not be workable, but CFA also notes that "the behavior of even the small number of systems subject to effective competition is important in the near-term" and "provides a very important picture."[22] Still, CFA proposes a regulation scheme based upon a combination of per-channel rate comparisons with competitive systems, inflation-based adjustments and historical projections.[23]

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[20](...continued)
40-69 provide very limited data concerning recent performance of cable systems.

[21] *See* CFA Comments, pp. 84 and 101; municipal coalition comments, Appendix 1.

[22] *Id.*, p. 84.

[23] *Id.*, pp. 106-107. CFA's also seems to overlook why "evasions" of regulation will be ameliorated by per-channel rate regulation. The vast majority of cable subscribers (85% to 95%)
(continued...)

CFA's historical projections of per channel rates are quite suspect. Despite acknowledging that per channel rates declined by an annual average of 4% between 1984 and 1992, CFA has simply assumed that rates decrease trends should have continued to be linear forever.[24] This trend projection assumes (1) that all systems were fully profitable in 1984, (2) that no systems were operating under rate freezes in 1984, (3) that the cost functions of technologies used to rebuild and upgrade distribution plant, reception equipment, billing, and customer service were identical to plant being replaced, and (4) that there have been no qualitative improvements in any area of cable business. Each of these assumptions is false, as we have shown. CFA's linear trend line in Figure IV-9 ignores the downward-sloping average cost curve effect: As the rate of increase in incremental outputs declines over time the proportion of increased output, over which fixed costs can be spread, also declines. This curve characterizes cost recovery in any growing business that confronts fixed costs, including but certainly not limited to

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[23](...continued)
have elected to take both basic service and the popular expanded or satellite service tier(s). If rate benchmarks are computed consistently for *both* basic cable services and cable programming services, the consumers' own past marketplace behavior will eliminate most incentives to retier services in an unreasonably discriminatory manner. Retiering between basic and cable programming services would not, under this regime, affect the price for the very combination of tiers that has proven most popular with consumers, and would not alter the rate benchmarks.

[24] CFA Comments, Table IV-1 (p. 46); see also Figure IV-9.

cable systems.[25] Thus, the historical projections provided by CFA mask an extremely important condition that the Commission would have to try to solve empirically under CFA's formulaic proposal -- on top of trying to identify, define and allocate cable costs.

This clear statutory directive -- to avoid creating a "cost allocation manual" in the words of Congress -- is also contradicted by the "model" developed by the municipal coalition. The consultant's report offered by the coalition suggests that applying traditional cost of service regulation to the cable industry would be relatively easy and straightforward.[26] Considering how traditional cost of service regulation *would actually operate in practice*, however, this simple paper reveals just the opposite conclusion. Smith and Katz's summary states that their proposal "requires only information that is readily

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[25] I.d., pp. 106-107. CFA's also seems to overlook why "evasions" of regulation will be ameliorated by per-channel rate regulation. The vast majority of cable subscribers (85% yo 95%) have elected to take both basic service and the popular expanded or satellite service tier(s). If rate benchmarks are computed consistently for both basic cable services and cable programming services, the consumers' own past marketplace behavior will eliminate most incentives to retier services in an unreasonably discriminatory manner. Retiering between basic and cable programming services would not, under this regime, affect the price for the very combination of tiers that has proven most popular with consumers, and would not alter the rate benchmarks.

[26] Appendix 1 to the municipal coalition comments, Smith and Katz, "Analysis of Cable Television Rate Models and Development of Cost-Based Industry Norms," including Appendices A (cost benchmark model) and B ("monopoly" prices).

obtainable."[27] But the consultants belie this suggestion by stating on the previous page that capital and operating costs should be scrutinized by the Commission and local franchising authorities to determine if they are "prudent." Related-party transactions, they note, should be dissected by regulators to see if they contain "possible distortions." The Commission and local authorities should also review the valuation of both hard assets and other assets so as to disallow excess values from the "rate base."[28] The point here is clear: None of the information needed to review *any* of these types of adjustments is "readily obtainable." These are exactly the types of issues and required analyses that have made traditional cost of service regulation difficult and expensive to apply to dynamic industries. The Commission's efforts to try to obtain the information would be long, complex and probably hotly contested.

The "simplified" cost of service model outlined by Smith and Katz in Appendix A to their paper hardly provides any solace that traditional regulation could be efficiently applied to the cable industry. The cost "norms" that they suggest be used are largely undocumented, and even the drastically simplified "model" itself fails to reflect key components of cable industry costs. These costs would have to be recognized by the Commission (or any other

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[27] Comments of the municipal coalition, Appendix 1 (Smith and Katz Report), p. 3.

[28] *Id.*, p. 2; *see* pp. 9-10.

ratesetting authority) under any type of public utility-style cost of service model. Ignoring key parts of the current cable industry financial and operating environment that Continental detailed in its Comments, the "model" fails to account for income taxes that would be payable on any return calculated on a "rate base" or other costs that would be allowable under traditional cost of service regulation.[29] As we noted, if rate regulation converts the cable industry from one based upon deferred earnings expectation to one seeking current returns, many of the resulting economic effects, such as income tax effects, would *raise* cable subscribers' rates.[30]

Smith and Katz believe that "normative cost data can be used for all or most key cost variables."[31] This is an important assertion because, as they note, only such normative cost data would "avoid the needs for hundreds or thousands of detailed cost of service studies."[32] The authors are quite sketchy when it comes to defining how such normative costs would be fixed, providing only limited examples of hypothetical, possible benchmark cost categories or which cost causative factors might be reflected in the benchmarks.[33] They apparently believe that

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[29] *See* Smith and Katz Exhibit A-4.

[30] Continental Comments, Appendix C, pp. 8-9.

[31] Appendix A, p. 3.

[32] *Id.*

[33] *See* footnotes 1 and 2 on page 5 of Appendix B.

either replacement costs or historical costs should be used, depending on still more characteristics of specific systems.[34] While Smith and Katz endeavor to illustrate their model, they concede that the figures they used do not "represent actual norms" but "merely clarify the model presentation."[35] They propose that the normative data should be specific to each franchise area, even where "local cable systems contain multiple franchise areas."[36] This proposal alone would require cable operators to implement, and the Commission to verify, multi-level cost allocation methods at the franchise, system, and in Continental's case, for regional operating units.

Smith and Katz leave it to the Commission to actually do the hard work. The Commission should "assess certain [unspecified] external factors that affect costs", "determine which cost and other variable [sic] are most appropriate," and perhaps to "find that various specific local factors are required to give the model sufficient power.."[37]

Aside from its imprecision, the fundamental economic flaws in the supposed "model" are also clear. Smith and Katz attempt to

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[34] *Id.*, p. 6.

[35] *Id.*, p. 8, footnote 4.

[36] *Id.*, footnote 6.

[37] *Id.*, p. 7. Similarly, in Appendix B, Exhibit B-4, Smith and Katz assume that the "actual figure [to build a modern cable system] could be empirically determined by the Commission."

apply the "model" developed in Appendix A, but the details of how this is done are not provided.[38] Presumably a key part of this analysis is the type of "rate base adjustment" illustrated on their Exhibit B-4, a grossly simplistic analysis which, in effect, assumes that *all of the value* of a cable other than the *first cost of capital* are all attributable to "monopoly".[39] The analysis is plainly wrong. As we indicated in our initial Comments[40] this type of valuation effort can only be made by comparing other industries that operate within a cash flow model, rather than return on assets model. Smith and Katz should first apply the same analysis, over multiple years, to other leveraged industries, like real estate, or to entertainment industries, like movie theaters, advertising-supported industries, like newspapers, or less-capital intensive industries, like grocers. If they do this they will find that sales in these industries typically occur at values that far exceed the "hard asset" value of the firms in question. This is true in many of these industries that do not exhibit unusually large economies or scale or scope and are not subject to significant entry and exit barriers. Hence, the conclusion that market prices in excess of

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[38] Exhibit B-7.

[39] The "estimated percent of the monopoly component" calculated on Exhibit B-4 is only 80% of this difference. However, this adjustment simply reflects the assumption that 80% of the calculated "excess" value should be attributed to basic and expanded basic services.

[40] *See*, for example, Continental Comments, Appendix B, pp. 3-4 and Appendix C, pp. 6-10.

asset values demonstrate monopoly power is simply insupportable as a general matter.

The municipal coalition, based upon the scant and fragmented data assembled by Smith and Katz, propose that the Commission should reduce basic cable rates to $0.32 per channel.[41] The result-oriented analysis is highly anecdotal and purely speculative. Both the municipal coalition and Smith and Katz apparently believe that the Commission should abandon the effective competition standard in the 1992 Act, or at least manipulating that standard to suit the outcome sought by the municipal coalition. Noting that its analysis involves "discounting systems where competition does not appear to be active,"[42] the coalition opines that "there are several reasons why, in a particular community, apparent head-to-head competition may not lead to lower prices".[43] The coalition, however, does not state exactly how and when systems that are in direct competition should be excluded from the effective competition test.[44] Again, this point is apparently left for extensive

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41 Municipal coalition Comments, Appendix 2, p. 2.

42 *Id.*, p. 4.

43 *Id.*, p. 3.

44 Smith and Katz state that the cost structure of two competing systems, which "duplicate plant and split the subscriber base" may actually be higher than single-supplier markets. [Smith and Katz Appendix B, p. 7, footnote 6]. This (continued...)

Commission review in future years.

Conclusion

Only a handful of commenters have attempted to illustrate some sort of application of the traditional public utility cost of service model. When these suggestions are scrutinized carefully, however, they do not make the case. Instead, the deficiencies, omissions, economic misconceptions and, in one case, obvious gaming that characterize these proposals should strength the Commission's efforts to develop a workable rate benchmark system.

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[44](...continued)
logic poses a fundamental attack on the very structure of the 1992 Act: Congress should never have formulated the effective competition test, because the test could *never* be permanently applied. If the cost structure is higher under competition, any rates lower than those offered in areas without duplicate plant would not be permanently sustainable.

APPENDIX B
FEDERAL COMMUNICATIONS COMMISSION
DOCKET NO. 92-266

Peat Marwick Analysis of Cable Television Profitability

Peat Marwick

Certified Public Accountants

A COMPARISON OF THE PROFITABILITY OF THE CABLE TELEVISION INDUSTRY WITH OTHER CORPORATIONS

PREPARED FOR:

NATIONAL CABLE TELEVISION ASSOCIATION

PREPARED BY:

THE POLICY ECONOMICS GROUP

KPMG PEAT MARWICK

JANUARY 17, 1992

PREFACE

The Policy Economics Group of KPMG Peat Marwick was asked by the National Cable Television Association to study the profitability of five of the largest cable television multiple system operators (MSOs) and to compare the profitability of these systems with that of all other U.S. corporations. This report shows the results of a survey and an analysis of these MSOs. It compares basic income statement and balance sheet information, and three profitability measures with similar information for publicly-traded nonfinancial corporations.

The report has an executive summary, a table of contents, five parts, and two appendixes. Part I is an introduction, Part II describes the methodology, Part III describes survey information on cable television revenues and changes in cable television income, Part IV compares the profitability of cable television operations with publicly-traded nonfinancial corporations, and Part V is the conclusion. Appendix A describes data sources, data limitations, and provides a copy of the survey form. Appendix B provides the underlying data used in the analysis of cable operations of the five companies and the nonfinancial companies.

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EXECUTIVE SUMMARY

The Policy Economics Group of KPMG Peat Marwick was asked by the National Cable Television Association to study the profitability of five of the largest cable television multiple system operators (MSOs) and to compare the profitability of these systems with that of other U.S. corporations. In performing this study, KPMG Peat Marwick collected financial data from the following MSOs that represent 36 percent of all U.S. cable subscribers: Tele-Communications Inc., Time Warner Inc., Continental Cablevision Inc., Cox Cable Communications, and Times Mirror Cable Television. Data were calculated for the 1988 through 1990 period.

This data collection process was designed to produce information that is directly comparable to financial information reported by publicly-traded corporations generally. By collecting this kind of information we are able to develop profitability measures of the industry that can be compared with other corporations. This approach is useful because it is the first study we are aware of that includes such profitability measures for major privately-held MSOs.

One bottom-line measure of industry profitability that we examined is net income over the three-year period included in the study. Cable's net income was, on average, 0.3 percent of total revenues. This small amount of net income is also reflected in three measures of profitability we analyzed. We analyzed the return on shareholder equity, the return on total assets, and the return on operating assets. Each of these rates of return earned by MSOs were compared with corresponding yields of publicly-traded nonfinancial corporations. These measures show the industry to be generally less profitable than other U.S. nonfinancial corporations.

The return on shareholder equity of the cable industry over the three-year period was only -0.8 percent, while the return for nonfinancial corporations was 12.8 percent. The return on total assets over the period is more similar with cable operations earning 6.8 percent and other firms earning 7.6 percent. The return on operating assets again shows the cable industry performing more poorly than nonfinancial firms with the cable industry earning 9.2 percent and other firms earning 13.0 percent. Each of these measures of profitability is analyzed and described more fully in the report. The figures are shown in the following table.

Our conclusion after analyzing these data is that the profitability of cable operations of the five major cable operations we studied is less than or equal to the average profitability of publicly-traded U.S. nonfinancial industries over this period. While we have not studied the profitability of every company in the cable television industry, we have no reason to believe the companies we studied, which represent 36 percent of basic service cable television subscribers, are not representative of the entire industry.